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10/705,294	11/10/2003	William Silver	C97-050 CON3	5085

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EXAMINER

MARIAM, DANIEL G

ART UNIT

PAPER NUMBER

2624

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/705,294

Applicant(s)

SILVER ET AL.

Examiner

DANIEL G. MARIAM

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 122-154, 156 and 157 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 147-154, 156 and 157 is/are allowed.
- 6) ☒ Claim(s) 122-129, 134 and 135 is/are rejected.
- 7) ☒ Claim(s) 130-133 & 136-146 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

***Response to Amendment***

1. In response to the Office Action mailed on March 21, 2006 applicants have filed an amendment filed on June 26, 2006, amending claims 122, 126, 133, 134, 136, 147, 149, 154, and 157; canceling claim 155; and arguing to traverse the rejections of claims 147-154 and 156-157.

***Response to Arguments***

2. Applicant's arguments, see page 17, filed June 26, 2006, with respect to claims 147-148 and 155 have been fully considered and are persuasive. The obviousness rejection thereof has been withdrawn.

3. Applicants' arguments, see pages 12-16, filed on June 26, 2006, with respect to the rejection(s) of claim(s) (122-125 and 134) and (130-131, 135, 142, 144 and 146) under 35 U.S.C. 102 and 103 respectively have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, a new ground(s) of rejection is made (claims 122, 123, 124, 134, and 135) in view of Cootes, et al. (Active Shape Models – Their Training and Application) which will be discussed in the rejections below.

***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting

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ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 122-123, 125, 126, 127, 128, and 129 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 28, 30, 31, 32, 33 and 34 respectively of U.S. Patent No. 7,058,225. The conflicting claims are not identical, because patent claim 28 requires at least one or more of the following additional limitation/s “a run time image, an expected/actual shape of an object, a plurality of field elements”, not required by claim 122 of the current application ‘294. However the conflicting claims are not patentably distinct from each other because: all of the claims recite common subject matter; Whereby independent claim 122 of the application, which recite the open ended transitional phrase “comprising”, do not preclude the additional elements recited by claim 28 of the ‘225 patent, and whereby the elements of independent claim 122 are fully anticipated by patent claim 28 and anticipation is “the ultimate or epitome of obviousness” (*In re Kalm*, 154 USPQ 10 (CCPA 1967), also *In re Dailey*, 178 USPQ 293 (CCPA 1973) and *In re Pearson*, 181 USPQ 641 (CCPA 1974)).

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 122-124 and 134-135 are rejected under 35 U.S.C. 102(b) as being anticipated by Cootes, et al. (Active Shape Models – Their Training and Application).

With regard to claim 122, Cootes, et al. discloses a method of training a model pattern for use in geometric pattern matching (See for example, section 6, 2<sup>nd</sup> + 3<sup>rd</sup> paragraph, page 57), the method comprising: obtaining a digital image of an object, detecting boundary points in the digital image (See for example, Figs. 2-4); and generating information about the boundary points for inclusion in said model pattern, the information being stored as a function of position within a region of the image that includes the boundary points (See for example, sections 3.1 and 3.3, pp. 41 and 43).

With regard to claim 123, the method of claim 122, wherein the information is stored as function of real-valued position within the region of the image that includes the boundary points (See Table 1; and section 3.4.2. page, 45).

With regard to claim 124, the method of claim 122, wherein the information is stored at discrete points on a grid using a two-dimensional array (See Figure 6, page 45).

With regard to claim 134, the method of claim 122, wherein generating information about the boundary points includes: determining neighboring boundary points for each boundary point (See for example, Fig. 4 and Fig. 6, pp. 41 and 45).

With regard to claim 135, the method of claim 134, wherein generating information about the boundary points includes: connecting neighboring boundary points to provide at least one chain of boundary points (See Fig. 4, page 41).

***Allowable Subject Matter***

8. Claims 130-133 and 136-146 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 147-154 and 156-157 are allowed.

10. The following is an examiner's statement of reasons for allowance: the prior art of Irie, et al (or Cootes, et al) does not disclose or fairly suggest, among other things, using at least one chain of boundary points to carry out at least one propagation event, each propagation event providing a plurality of vectors, each vector indicating a distance and direction towards the at least one chain of pattern boundary points at respective additional positions within the region of the image that includes the boundary points. It is for this reason and in combination with all of the other elements of the claims that claims 147-154 and 156-157 are allowable over Irie, et al (or Cootes, et al).

***Conclusion***

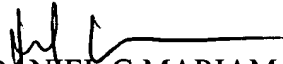
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent number: 5,926,568.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
DANIEL G MARIAM  
Primary Examiner  
Art Unit 2624

September 18, 2006